NEW-ENGLAND FARMER.

PUBLISHED BY JOSEPH BRECK & CO., (AGRICULTURAL WAREHOUSE,) NO. 52 NORTH MARKET STREET.

VOL. XXIV.] BOSTON, WEDNESDAY EVENING, DECEMBER 31, 1845. [No. 27.

THE INFLUENCE OF AGRICULTURAL LABORS ON CLIMATE, &c.

A question of great importance is, as to whether the agricultural labors of man are influential in modifying the climate of a country or not. Do extensive clearings of woods, the draining and drying up of great swamps, tend to diminish the running water of a country ?—and if so, whether by lessening the fall of rain, or by promoting the more speedy evaporation of that which has fallen.

In some districts it has been held that the streams which had been used as moving powers, have very sensibly diminished. In other places, the rivers are said to have shrunk visibly; and in others, springs that were formerly abundant, have almost dried up. And it is generally asserted, that the falling off in the springs and streams, had followed close upon the period at which the woods, scattered over the surface of the country, were cleared away without any kind of reserve.

These statements, which may be assumed as facts, seem to indicate that where the woods have been felled, it rains less than it did formerly. This, indeed, is the general opinion entertained on the subject.

But at the same time that the facts as stated have been observed, it has further been noticed that, since the clearing of the surface from forests, the torrents and rivers which seemed to have lost in amount of regular supply of water, had become subject to sudden and extraordinary risings, which had proved the cause of numerous and grave calamities. In the same way, springs that are generally all but dry, have been seen to burst forth again abundantly after violent storms.

These latter observations, as may readily be imagined, are of a kind that should lead us not lightly to embrace the vulgar (common) opinion, which maintains that the cutting down of the woods has had the effect of lessening the mean annual quantity of rain. It is not only not impossible that this quantity has not varied, but it may even happen that the mass of water which passes over the bed of a stream, supposed shrunken, is actually the same as ever it was. It is very possible that in this, as in other cases, the appearance of the fact has been taken for the reality.

It were very important to discover some natural index to a solution of the question at issue—whether or not the destruction of the forests that once covered the face of a district of country, have had the effect of lessening the mean annual fall of rain.

The lakes which are met with in plains, and at different levels in mountain ranges, seem well calculated to throw light on this subject. Lakes may, in fact, be taken as natural guages of the running waters of a country. If the mass of the water contained in the lakes, undergo change in one direction or another, it is obvious that this change, and the direction in which it has occurred, will be proclaimed by the state or mean level of the lake, which will differ for the same reason that it does at different seasons of the year, viz: as drought or rain prevails. The mean level of the lake or lakes of a district, will, therefore, fall, if the quantity of water which flows through that district diminishes; the level, on the contrary, will rise, if its streams increase; and it will remain stationary if the afflux and efflux of the lake continue unchanged. In the following remarks, I shall attach myself particularly to observations upon lakes which have no outlet, for the reason of the facility with which any, even slight change in the level of these may be discovered.

The facts upon which I shall more particularly dwell, were observed in South America; but I shall show that what is true with regard to this continent, is true with reference to any other continent.

One of the most interesting portions of Venezuela is, undoubtedly, the valley d'Aragua. The rivers which rise in its interior, have no outlet to the ocean: their waters accumulate in the lowest part of the valley, and form the beautiful lake Valentia. This lake is raised about 1300 feet above the level of the sea, and is about ten leagues in length, and about two leagues and a half where it is widest.

At the time when M. de Humboldt visited the Aragua valley, the inhabitants were struck with the gradual diminution which had been going on in the waters of the lake, during the last thirty years. It was enough to compare the statements of older writers with its condition at this time, to obtain conviction that the waters had, in fact, very much diminished. The appearance of the surface gives proof of the fact of the recession of the water; certain hillocks which rise in the plain still preserve the title of islands, which, undoubtedly, they formerly were. M. de Humboldt, after the most careful consideration of all the circumstances, did not hesitate to ascribe the diminution of the waters of the lake Valencia to the extensive clearings which had been effected in the course of half a century in the Aragua valley. "In felling the trees which cover the crowns and slopes of mountains," says this celebrated traveller, "men in all climates seem to be bringing upon future generations two calamities at once—a want of fuel and a scarcity of water."

Twentyfive years after M. de Humboldt, I explored, in my turn, the Valley d' Aragua, having fixed my residence in the little town of Maracaibo. The inhabitants had now remarked that for several years, not only had the lake ceased to diminish, but that it had even risen very perceptibly. Some fields that were formerly covered with cotton plantations, were now submerged. In short, the fears which the inhabitants had entertained for so long a period, had entirely changed; they were no longer afraid of the lake drying up; they saw with dismay that if the water continued to rise as it had done lately, it would in no long space of time, have drowned some of the most valuable estates, &c.

In the course of the last twentytwo years, important political events had transpired. Venezuela no longer belonged to Spain; the peaceful valley d'Aragua had been the theatre of many a bloody contest; war had desolated this beautiful country, and decimated its inhabitants. Agricultural operations, of any extent were abandoned, and the forest, which makes such rapid progress in the tropics, had soon regained possession of the surface which man had won from it by something like a century of continued and painful toil. With the increasing prosperity of the valley, many of the principal tributaries to the lake had been turned aside to serve as means of irrigation, so that the beds of some of the rivers were absolutely dry for more than six months in the year. At the period which I now refer to, the water was no longer used in this way, and the beds of the rivers were full. Thus with the growth of agricultural industry in the Valley d'Aragua, when the extent of cleared surface was continually on the increase, and when great farming establishments were multiplied, the level of the water sunk; but by and by, during a period of disasters, happily passing in their nature, the process of clearing is arrested, the lands formerly won from the forest are in part restored to it, and then the waters first cease to fall in their level, and by and by show an unequivocal disposition to rise.

I shall now, without, however, quitting America, carry my readers into a district where the climate is analogous to that of Europe, where the surface is occupied by immense fields, covered with the cereals as with us. I speak of the table-lands of New Granada, of those valleys raised from 10,000 to 13,000 and 14,000 feet above the level of the sea, in which the mean temperature throughout the year ranges from 58° to about 62 Fahr. Lakes are frequent in the Cordilleras; and it would be easy for me to describe a great number; I shall, however, confine myself to those which became subjects of observation in former times.

The village of Ubate is now situated in the neighborhood of two lakes. Some seventy years ago, these two lakes formed but one; the old inhabitants saw the water shrinking and new fields presenting themselves year after year. At this present time fields of wheat of extraordinary luxuriance occupy levels that were completely inundated thirty years ago.

It is enough, indeed, to perambulate the neighborhood of Ubate, to consult the old sportsmen of the country, and to refer to the annals of the various parishes, to be satisfied that extensive forests have been cut down in the whole of the surrounding country; the clearing, in fact, still continues; and it is certain that the recession of the waters, although much slower than it was in former times, has not yet entirely ceased.

To these authentic facts, which I could multiply and support by many others of a similar kind, it may be replied, that the diminution of the water, incontestable as it is, might perhaps have taken place without the clearing away of the forests. It may indeed be maintained, that the drying up of the waters is owing to a totally different cause, altogether unknown to us; that it must be ranked among the numerous phenomena, the reality of which we perceive, but without being able to render any account of their cause.

I cannot, in the instance last quoted, as in that

of the lake of Valencia, refer to any increase of the lake connected with suspension of agriculture, or the reappearance of the forest. I might, however, adduce in favor of the opinion which I defend, the slowness with which the decrease in the lakes of the valley of Ubate has lately gone on, and this too since the felling of trees in the neighborhood has almost entirely ceased. Further proof of the fact which I am urging, is furnished by this: that lakes in the immediate vicinity of those that have shrunk most remarkably, but around which no destruction of the forest has taken place, have undergone no change in their level. The lake of Tota, situated at no great distance from the valley of Ubate, at an elevation that must approach 13,000 feet above the level of the sea, in a region where vegetation has almost entirely disappeared, has preserved its pristine level unaltered.

[After stating many other facts, the author says:]

It is probable that local clearings of forest land, even of very moderate extent, cause springs and rivulets to shrink, and even to disappear, without the effect being ascribable to any diminution in the amount of rain that falls.

We have still to inquire whether extensive clearings of the forest—clearings which embrace a whole country—cause any diminution in the quantity of rain that falls. Unfortunately, the observations which we have upon the quantity of rain which falls in particular districts, are only of sufficient antiquity and accuracy in Europe to be worthy of any confidence, and there the soil was cleared before observation, in the generality of instances, began.

The United States of America, where the forests are disappearing with such rapidity, will probably one day afford elements for the complete and satisfactory solution of the question, whether or not the cutting down of forests causes any diminution in the annual fall of rain. My own opinion is, that the felling of forests over a large extent of country, has always the effect of lessening the mean annual quantity of rain.

The continent of America presents to us on the largest scale, with two regions placed in the same conditions as to temperature, but in which we successively encounter the circumstances which are most favorable to the formation and fall of rain in one case, and to its absence in the other.

Setting out from Panama, and proceeding towards the south, we encounter the Bay of Cupica, the provinces of San Bonaventura, Choco, and Esmeraldas. In this country, covered with thick forests and intersected with a multitude of streams, the rains are almost incessant; in the interior of Choco, scarcely a day passes without rain.

Beyond Tumbez, towards Pata, an order of things entirely different commences: the forests have entirely disappeared, the soil is sandy, agriculture scarcely exists, and here rain is almost unknown. When I was at Payta, the inhabitants informed me that it had not rained for seventeen years! The same want of rain is common in the whole of the country which surrounds the desert of Sechura, and extends to Lima. In these countries rain is as rare as trees are.

In Choco, where the soil is thickly covered with trees, it rains almost continually; and on the coast of Peru, where the soil is sandy, without trees, and devoid of verdure, it never rains; and this, as I have said, under a climate which enjoys the same temperature, and whose general features and distance from the mountains are nearly the same.

The facts which have been stated, seem to authorize me to infer—

1st. That extensive destrction of forests lessens the quantity of running water in a country.

2d. That it is impossible to say precisely whether this diminution is due to a less mean annual quantity of rain, or to more active evaporation, or to these two effects combined.

3d. That the quantity of running water does not appear to have suffered any diminution or change in countries which have known nothing of agricultural improvement.

4th. That independently of preserving running streams, by opposing an obstacle to evaporation, forests economize and regulate their flow.

5th. That agriculture, established in a dry country, not covered with forests, dissipates an additional portion of its running water.

6th. That limited clearings of forests may cause the disappearance of particular springs, without our being therefore authorized to conclude that the mean annual quantity of rain has been diminished. —*Boussingault's Rural Economy.*

DEFINITIONS OF TERMS USED IN AGRICULTURE.

Arable Husbandry—where the raising of grain is the main object of the cultivator.

Arborculture—cultivation of useful trees and shrubs; rural embellishment.

Assimilation—in animal and vegetable economy, the hidden process by which animals and plants are enabled to convert matters for which they have an affinity, into their own substance and nature.

Biennial plants—such as flower and seed the second year, and then die; as the cabbage, carrot, onion.

Calcareous soils—such as will effervesce with acids; showing the presence of lime.

Cereal grains—those raised for bread-corn; as wheat, &c.

Corn—in Europe, the general term for all grain convertible into bread; in the U. States, the term is particularly applied to maize.

Cotyledons—seed-lobes, or the two halves which separate in the act of sprouting.

Culinary vegetables—such as are raised for the table.

Ferruginous soils—those which abound in iron.

Herbage plants—clover and other plants cultivated chiefly for the herb, to be used either green or made into hay.

Inorganic matter—devoid of organs: pure earths.

Insoluble matter—not dissolvable by the waters of the soil.

Latter-math, after-math, or rowen—terms applied to the second crop or grass.

Lay, ley, lea—terms applied to meadow, pasture, or sward.

Leguminous crops—peas, beans, and the like; having a seed-vessel with two valves, in which the seeds are fixed to one side only.

Mould—organic matter in a finely divided and decomposed state, with a little admixture of earth, as leaf mould, peat mould, &c.

Organic matters—animal or vegetable matters in a greater or less state of decay.

Perennial plants—those that do not generally flower the first year, but die down to the ground, and grow up again the next spring, and so on for a number of years, as rhubarb, horse-radish, &c.

Primitive soils—such as exist in early formations of the globe, and destitute or organic remains.—*Buel's Far. Companion.*

BONE MANURE.

Some years since, a gentleman of our acquaintance, who had long been incredulous as to the value of bone-dust as a manure, determinned to avail himself of a favorable opportunity and give it an impartial trial. The soil on which the experiment was made, consisted of a light, sabulous sand, reposing on a sub-stratum of gravel, and so porous as to admit of a ready descent. In seasons ordinarily dry, great inconvenience was experienced from drought, as all the water that fell was immediately taken into the subsoil without affording any essential benefit to the growing crop.

On this soil he planted ten quarts of beans, manuring every other row with bone dust, and leaving the remainder undressed, with the exception of a spoonful of gypsum to the hill. The favorable action of the former was so obvious that the difference was distinguishable as far as the crop could be discerned, and at harvest, the boned rows yielded double the crop afforded by those to which plaster only had been applied.

A similar experiment on a patch of Canada corn on the same soil, gave the same result. Since then he has made it a practice to use this manure liberally on all tillage crops, whenever it can be obtained. He is now, we are glad to say, exerting his influence to establish a mill for crushing bones in the town where he resides, and with prospects of success.—*Maine Cult.*

Agricultural Prejudices.—At the annual meeting of the Liverpool Agricultural Society, Lord Stanley, in advocating the introduction of iron plows, to supercede the lumbering wooden plows in common use, illustrated the prejudices against improved implements cherished by some farmers, by the following anecdote. A gentleman in one of the midland counties, presented to one of his farmers a couple of iron plows, and having left the country for two years, returned, and upon visiting his farm, was surprised to find not only that the number of iron plows was not increased, but that no use was made of those he had given to the tenant. The answer he received on inquiring the cause of this was, "Why, you see we have a notion here, that *iron plows breed weeds!*"

Husbandry.—By husbandry, the ground gives us everything necessary for food and nourishment, and such things, likewise, as afford the greatest pleasures. Yet, though it gives us plentifully of all kinds of things, it does not allow us to reap them in sloth and idleness; but excites us to health by the labor it appoints us.

The practice of husbandry makes men strong and bold, enabling them to defend their country.

He was surely a wise man that said husbandry was the mother and nurse of all the other sciences; for when she flourished, all the other sciences and faculties fared the better; but when the ground lies uncultivated, and brings no crop, all the sciences and arts are at a loss by land and sea.

It is a healthful employment, breeds good men, and occasions generosity of spirits and good will towards one's friends and country.—*Socrates.*

Aphorisms.—An estate is not strictly *property*, unless it be *profitable.*

The attention of the owner should be given to his estate. A Persian king being asked what made his horse so fat, replied, "the eye of his master." —*Selected.*

From the Ohio Cultivator.

THE MODEL FARM OF OHIO.

The model farm of this State contains 100 acres, 75 of which are well cleared, and the whole under fence. 60 acres are embraced in one enclosure, and this includes all the arable and meadow land upon the farm. The buildings are all of stone, neat, durable and commodious. The dwelling is not large, but capacious enough for use of the family and a room and a bed or two for an occasional friend. The kitchen and stables are supplied with water from the same spring. No stock but hogs and sheep are permitted to graze. The cattle and horses are constantly kept in their stalls, and are always in good order. The cows are at all times fat enough for the butchers and the growing stock at two years old attain the weight of ordinary steers at four. During the summer they are soiled. with green food, consequently, 20 acres in grass is sufficient to keep four horses and ten cows with their offspring until the young stock are ready for the market at three or four years old, when they average him $30 per head. Of these he makes it a point to sell ten head a year. For his stock he raises about one acre of roots, sugar beets, mangel wurtzel and turnips each year, which yields him on an average about 1500 bushels. Of corn he cultivates five acres a year, which by proper culture and judicious rotation, yields him 500 bushels. Five acres in wheat gives yearly 150 bushels. 5 acres of oats, 300 bushels.

He has an orchard of eight acres, in which he has 200 apple trees, 25 pear, 25 plum, 100 peach and 50 cherry trees. This is divided into four compartments of two acres each. Two of these, he plows up every year, and in the spring plants them in Jerusalem Artichokes. Here he keeps his hogs. In the two that are not plowed, he has a clover and orchard grass ley, in which the swine feed from the middle of May to the first of August, when they are let into one of the artichoke yards and range at will into the two grass yards and this till winter, when they are passed into the second artichoke yard, where they are kept till the grass has sufficiently advanced in one of the fields to turn them into that. Thus upon grass, roots and fruit the swine are kept so thrifty, that a few bushels of grain are sufficient to make them ready for the butcher. In this way he manages to kill thirty hogs a year, which will average 400 lbs each. He gives them beet wintering.

His sheep range principally in the woods, with a small pasture of five acres. He keeps 75 head, which yield him 300 pounds of wool a year.

As this farmer has raised a large family, and raised them all well, having given each child a good practical education, I was curious to look into his affairs, and as he keeps a regular account current of his transactions, it gave him no trouble to inform me of the result of his mode of proceeding, which is briefly as follows :

Product of the farm—	
10 beef cattle, average $30 per head,	$300
25 hogs, at $12 per head,	300
200 bush. corn, at 25 cts. per bu.	50
Product of sheep,	100
do. dairy,	200
do. orchard,	300
Other and smaller crops,	100
	$1350
Average cost of hired labor per ann.	300
	$1050

Thus, from 100 acres of land, even in Ohio, this man has been able to lay by, and invest at interest, on an average, $500 a year, for the last 12 years. Who has done better on a farm of 100 acres? Of course, like others, he has suffered somewhat from unfavorable seasons, in some of his crops, but his correct system of culture, and intelligent management, generally makes up for every loss experienced from this source.

His system of saving and making manures, turns everything into the improvement of his soil—weeds, ashes, the offal of his stock, soap-suds, bones, and everything that will tend to enrich it, is carefully saved and properly applied.

The history of this man is brief, but to the farmer, interesting. He began with the patrimony of good sense, sound health and industrious habits. Excellent, so far. In 1830, he had $3000 in cash. He bought this farm in a state of nature, in 1830, tor which he paid $400. He expended $400 more in clearing his land, in addition to his own labor. He first put up a temporary cabin, into which he moved his family. $1000 he put out at a permanent annual interest, and the remainder, with the earlier profits of his farm, he appropriated to the erection of his buildings, which were complete in 1834.

In the selection of his fruit, he sought the best varieties, which always gave him preference in the market. So of his stock. Everything he does, is done *well*. Everything he sends to the market commands the highest price, because it is of the best kind.

In his parlor is a well selected library of some 300 volumes, and these books are *read*. He takes one political, one religious, and two agricultural papers, and the N. A. Review; refuses all offices; and is, with his family, a regular attendant at church, and a pious, upright and conscientious man. He is the peace-maker in his neighborhood, and the chosen arbiter in all their disputes. He loans his money at 6 per cent. and will take no more.

He says he wants no more land for his own use than he can cultivate well—no more stock than he can keep well.

Here is a model of a man and of a farmer, and the model of a farm. Who will be happy and follow his example?

AGRICOLA.

[We presume none of our readers will be inclined to adopt the following "substitute for potatoes,"—and, indeed, unlike the poor creatures for whose benefit it is recommended, there is no need that they *should* adopt it—for, though they should lose all their potatoes, they have plenty of material for *bread*—and this is preferable to *blood*.]

Substitute for Bread.—Those who have hitherto made the potato a chief part of their diet, may be expected this unfortunate season, to be less scrupulous than usual about their food. I therefore venture to mention that the blood of oxen and sheep is habitually eaten in France, and is as wholesome and agreeable as pig meat. Sir Samuel Bentham attempted, during the great dearth of 1794–5, to introduce in London the use of the blood thrown away here. He engaged persons to make black puddings of it. The making of these, however, being a costly preparation of the blood, I would suggest in lieu the mode of preparing it in the south of France.

At the slaughter-house the blood is received in appropriate pails; salt is stirred into it whilst warm, to keep it fluid. As soon as it is collected, it is taken to the place where it is farther prepared. Seasoning of pepper and sweet-herbs is stirred in, as also a sufficient quantity of fat in small lumps. The mixture is then put into pans like our milk-pans, which are then put upon a vessel of water, kept boiling until the mixture is perfectly coagulated. The cakes of "sanguette," as this preparation is called, are then turned out of the pans, and sold retail at the pork-shops and butchers, &c., cut out in slices, at about a third the price by weight of the best pieces of butcher's meat. The purchasers fry these slices to cook them.—*M. S. B., in London Gard. Chron.*

More Capital needed in Farming.—Country gentlemen bitterly complain of the impossibility of improving their estates, in consequence of tenants not paying their rents, many of them being so much in arrear, that there is little prospect of their ever being able to liquidate their debts. It is surely worth inquiring into this ruinous question.

It is capital that has enabled the manufacturers to call to their assistance, machinery, labor and fuel, and thus have they laid the foundation not only of their own fortunes, but raised the country to a position enviable indeed. The soil must always be valuable, and with proper management, must rather increase than decrease. It cannot be denied that the system of farming which allows fallows to be a substitute for cash in hand, rests on a false foundation. The third of a farm being out of cultivation, annually, reduces the property one-third the value, nay far more, for the plan encourages idleness and waste. Can landlords be surprised at their debtor and creditor accounts being unsatisfactory, when they resign a great proportion of their substance to preserve a part. The cause of the mischief so deeply seated throughout the land, is this: attempting to farm without gold to strengthen the sinews of man and beast. Half-fed cattle, picking up a scanty meal on undrained land; ill-paid laborers, with wan countenances, and nerveless arms; manure running to waste; weeds overtopping the crops; hedges unrepaired; and grain standing uncut, ripe, and falling out of the ear—are certainly not indications of a well regulated farm, and yet they are too common to escape the observation of the uninitiated in the mysteries of "the large farm system, with little or no capital." The destitution of the husbandman in this country is melancholy: in the midst of abundance, they are positively starving; men meet the eye at every step, ready and willing to contribute to the wealth of those who ought, and whose interest it is, to employ them. The invariable answer to the most heart-rending supplications for work is, we have no money to pay your wages. This is a painting from life. The agricultural population toiling for 1s. per diem, and even this at uncertain intervals, is a state of things which cannot exist much longer: it will be necessary to open the ports to foreign corn, to relieve the sufferings of our fellow-creatures.—*Falcon, in Lond. Gard. Chron.*

A Remarkable Sheep.—The Rochester Democrat says, that Mr. Daniel Sinclair, of Caledonia, Livingston county, N. Y., has a sheep in his possession sixteen years of age, which has never failed of shearing sixteen pounds of wool, and raising two lambs annually. The mother of this sheep was butchered in its sixteenth year, and yielded twenty pounds of tried tallow.

There are 900 different kinds of roses; pinks, 50.

SOUTHERN AGRICULTURE.

[The following is from an excellent address delivered before the Agricultural Society of Putnam county, Geo., by James A. Meriwether, Esq., published in the Southern Cultivator. Though his remarks do not apply to Northern farming, yet it may be interesting to Northern farmers to be informed of the state of things in agriculture at the South:]

"We must hope for improvement only as we diffuse a taste for agriculture among the people. This must be a work of patience and labor. Our schools can do much—our colleges and higher schools can and should do a great deal, in giving direction to the minds of the young men of our State, in this important particular. Instruction should be given in agricultural chemistry, in the practical analysis of soils, the composition of manures, &c. The young men should be *educated* for farmers, as well as for doctors and lawyers. The learned professions are overflowing, and with them, in a pecuniary point of view, it is a "beggarly account" of famished clients and pennyless patients. But make the application of science to agriculture a *collegiate* study, and a taste for the pursuit will be created.

"Another subject of no less importance, perhaps of equal importance, consists in diversifying our pursuits. Experience has told us, and every other civilized people, that we cannot acquire a continuing prosperity without this. The policy of the South for the last forty years, has been *to make cotton with which to buy negroes, and to buy negroes to make cotton.* While we have made ourselves dependent on the labor and industry of others for our bread-stuffs in part—our meat in a greater degree, and our horses and mules in a much greater degree, we have at the same time, been the insurers against rain and drought, against high and low prices, and now we are paying dearly for the risks assumed. We have relied upon our cotton to furnish us all the necessaries of life, instead of producing them at home. We have now but one relief left, and that is, to adopt the course we should have established at the outset—divert our attention from the over production of cotton, and develop and improve the resources of our State.

"Let the meat necessary for our own consumption be furnished by our own farmers—let the horses and mules required, be supplied by them—let them extend their wheat crops, and not only furnish the flour needed for our own consumption, but produce it for exportation. Wool is another article of general and extensive consumption, in the production of which we might profitably participate. We consume, annually, millions of pounds in negro blankets, hats, and other clothing. It is supplied us mostly from New York and Vermont. We can raise as good an article as that we buy, and at much less cost and risk, and consequently at greater profit. At the North, they are compelled to feed their sheep six months of the year: we need not feed them three. Why should we not then engage in the pursuit, at least so far as to produce for market as much of the raw material as we consume?

"We consume, annually, millions of dollars in shoes, leather, and saddlery of all kinds, and we buy all these from abroad. There is *profit* in this pursuit, and why not appropriate it to ourselves? Our coarse negro shoes are made abroad, and so are most of those which we wear; and nearly all our leather is from abroad likewise. The raw hide is frequently taken from the Georgia farmer, carried abroad, manufactured abroad, and then again sold to those from whom the raw material was purchased. It has happened within a few years past, that hides have been purchased in our own county, hauled to Virginia, converted into leather and shoes, and sold again in our State. Now, who pays the price of hauling to Virginia, the price of manufacturing the raw article, the price of bringing it back, and the profits upon each operation? It is the people who are simple enough to rely upon others for the supply of their commonest necessaries, and those are the people of Georgia. An idea is prevalent that good leather cannot be made in Georgia; this has been shown to be a great error; there is now manufactured at the Penitentiary, leather of all descriptions as good as that we buy from the North.

"Again: the iron we consume all comes from abroad while our mountains are filled with the richest ores—land cheap, and water power abundant. All we need is experience in the business, and why will not this be *bought* by those who have the capital to invest—a capital now almost unprofitably invested in cotton-making? It is humiliating to reflect, that for every nail in our houses, we are indebted to the skill and enterprise of others abroad.

"And again: the very lime with which we form our mortar, or wash our houses, is dug out from the earth, and prepared by the labor of others 1000 miles distant from us, while here in Georgia we have inexhaustible beds of the rock untouched. And why? Because we do not actually possess energy and zeal enough to burn a bushel of the stone properly, and prepare it for market.

"Who does not see in every shop, in every village, and at every cross-road, fruits brought from New England for sale? And yet our mountain regions produce them, as finely flavored and as rich as any from abroad. Why will not our people turn their attention to this branch of farming, and divert their labor somewhat from the culture of cotton?

"The labor necessary for the production of these things, if withdrawn from the cultivation of cotton, would not only serve materially to affect the production, but it would find a more profitable investment elsewhere. It would make us independent; would give encouragement and business to our own mechanics, and all the *profit* to labor would remain among us, in the shape of increased capital, building up our own people, and enriching our own State, instead of drawing from it its wealth, and adding to that of other States."

Smoking Seed Corn.—I wish to remind your readers that if they would save their young corn next spring from the depredations of squirrels, mice, birds, &c., to prepare for smoking their seed, according to the following recipe: Leave a few husks on the seed ears, so that they can be hung up in the smoke-house and smoked with the hams; or, hang them up in any dry place, and, before planting, dip the end of a stick in tar, set fire to it, and holding it under the corn, give it a thorough smoking. I have tried this for three years, and have saved many times my subscription to the paper by it.—*S. L. C., in Prairie Far.*

Stock for Marshfield.—The ship Independence, which arrived at this port last week from Liverpool, brought four cows and seven sheep, consigned to Hon. Daniel Webster.

For the New England Farmer.

GEOLOGY AND AGRICULTURE.

Mr Editor—I purpose in this to offer a few remarks in continuation of my former communication on the subject of geology and agriculture, and my object will be to make use of such language and illustrations as will be understood by the great mass of common farmers. We hard-working and hard-handed farmers, to be *benefited* by the labors and researches of the learned, must have "Science made easy."

One of the most indispensable inorganic constituents of all land plants, is potash. There is not a single plant in the field or the wood, the ashes of which does not contain it in one state of combination or another, and often in very large quantity—so much so, that the belief was once entertained that plants had the power of generating it within themselves; but more modern researches have most clearly pointed out the source whence it is derived, and the manner in which plants obtain it.

The foundation, as it were, of this earth, or the first consolidation that took place from the moulten state, was the primary rock—*granite.* This is composed of three minerals—quartz, felspar and mica. Quartz is the very hard, flinty part of granite: it is often found alone and pure, and is frequently called rock crystal, white flint-rock, &c. It is, however, of different colors—white, rose and smoky. In its chemical quality, it is considered of an acid nature.

Felspar is not so hard, although in its appearance it very much resembles quartz; but it is very different in its chemical qualities, as it contains some twelve or fifteen per cent. of potash: that is, a chemist can, by analyzing 100 lbs. pure felspar, obtain 12 or 15 lbs. of pot or pearlash; but as it costs more to obtain a pound of potash in this way, than many pounds are worth, it would not be a very profitable manufacture for a man to engage in.

Mica (isinglass) contains six or seven per cent. of potash. These three minerals, as mixed up in our granitic rocks, usually yield upon an analysis, about seven per cent. of potash.

Quartz (or silex, or silica, as it is usually termed in agricultural chemistry,) is not fusible in the hottest fire, nor soluble in the strongest acids; but if mixed with alkalies, soda or potash, in certain proportions, and subjected to a strong heat, it readily melts, and forms glass. If mixed in the proportion of one part silex and three of potash, it can be melted, and forms a soluble glass, that is, it will readily dissolve in boiling water, as sugar or salt does.

"Silex (quartz) enters into the composition of all plants, and forms the skeleton for the support of the sap vessels, and it also constitutes the entire epidermis or external skin (glaze) on the cornstalk, the stems of grasses, and the straw of wheat, and other grains"—and on some of the rattans and bamboos, there is such a hard coating as to emit sparks of fire when struck by a flint.

Acids and alkalies react upon each other: decomposing vegetable matters produce carbonic and vegetable acids: in our forests this decomposition is always going on, from the rotting of the fallen leaves, twigs, branches, and trunks, of trees. The water and moisture in the soil, saturated with these acids, act upon and dissolve the potash in the felspar and mica of the granite, and as much the larger part of all our soils is derived from the disintegrated and finely pulverized granite, the soil con-

tains a large amount of potash, in the stones, pebbles, and finer parts: the potash being liberated by the acids, in its turn acts upon and dissolves the silex, and in solution they are taken up by the rootlets of the plants, and the silex is deposited upon the surface of many species of plants, in a hard glaze, or coating, and every tube or sap vessel in the trunk and branches of trees, is lined with a coating of the same material.

Vats and tubs that have been long used for leaching ashes, have the silex dissolved out, and the woody fibre being insoluble by the alkali, is left behind, and very much resembles flax. Chemists give to this fibrous tissue the name of *lignin*. Paper makers, in manufacturing paper from straw, take advantage of the solvent powers of the alkalies, potash, soda, and lime, to decompose the silica, or hard coating upon straw, and some kinds of coarse grasses. Thread and yarn made from flax, is boiled in lye to dissolve the gritty substance, and thereby softens the threads.

Where grass has the wash from the barn-yard, it frequently lodges before it is nearly ripe. This is the result of an excess of organic matter, and a deficiency of potash and silex—the latter being needed to give firmness to the grass stems. On the banks of streams that are frequently overflowed, and deposits of fine sand left, redtop grass is generally found. I know of many such spots that have yielded fair crops for more than thirty years. The grass when well made into hay, has the appearance of being first rate fodder, yet cattle after being kept upon it for a day or two, refuse to eat it, and they will nearly starve before they can be made to feed upon it. This is caused by having too large a proportion of inorganic matter. From the sandy and porous nature of the soil, and the capillary action, there is a continual ascent of water; each particle of water brings with it its particle of potash and silex, and the deposit of this in the grass renders it hard and wiry, and innutritive, and the cattle reject it.

Upon our granite and gneiss ledges, where the soil is but a very few inches in depth, redtop grass is found to grow year after year: it is short jointed, and very narrow and pricked leaves; it is harder, and probably less palatable to cattle than that upon the banks of streams. The action of the carbonic acid given off by the roots immediately upon the surface of the rock, decomposes the potash and silex, and it is in excess, compared with the other constituents that are found in the same kind of grass grown upon a good soil, that has been cultivated and manured.

Upon spots of land that have the wash from a road, the grass is very frequently very heavy, and does not lodge, because in the wash that is sprayed over the ground by the showers of rain, it receives all the matters necessaay to form the perfect plant. And the same result is produced on our good and well cultivated soils.

I cite these cases to show that the mineral and organic constituents of the soil do materially affect the same kind of plants, not only physically, but chemically.

For the production of a good crop of wheat, or other grain, it is essential that the soil should contain a sufficient supply of soluble silica. Upon our newly cleared burnt lands, we obtain the greatest crops of wheat and rye. From the ashes left after the forest growth has been burned, there is an abundance of soluble silica. The straw upon burnt land has more strength and is much less apt to lodge, and not so liable to mildew, or rust, as it is upon highly manured soils.

Every farmer who has sown wheat upon highly manured land, knows how liable it is to be laid by the winds and rain, and how frequently the straw is rusted and the grain shriveled upon such soils. In the London Gardeners' Chronicle, of Aug. 9th, there is a very interesting article by Prof. Johnston, upon the use of silicate of soda as a manure for the wheat crop, or rather its application to the soil for the purpose of giving more strength to the straw. The article is altogether too lengthy to copy or even to give an abstract. But he says: "It is still an open question, then, whether or not we have it in our power, at our pleasure, to strengthen the straw of our grain plants—whether it would be useful to apply the soluble silicates to all our soils—whether there are any to which they may be applied with advantage and profit as an ordinary manure?" By the analysis of four different soils, analyzed in his laboratory, for the purpose of ascertaining the quantity of soluble silica in them, he comes to the conclusion that it *is not necessary* to apply it, as there was in the soil that had the least, enough "to supply the wants of 900 crops of wheat"—and the soil that yielded the most, "contained four times as much, or it would provide silica for 3600 crops."

From some experiments and facts, I am of the opinion that the farmer has it in his power to strengthen the straw of his wheat upon highly manured soil, so as very much to guard against rust, and its being laid or lodged.

But potash is found in the ash of plants in combination with other substances besides silex: it is always in combination with sulphuric, phosphoric, and other acids, and as it is so universally present in the ash of all land plants, it has an important part to perform in vegetable and animal life, and we cannot but recognize that all-wise Providence that has treasured up such an abundance of it in the granite rock, and the soil derived from it, and yet has rendered it so insoluble in water—but has made it sufficiently soluble, when acted upon by carbonic acid, and the roots of plants, to supply to them in *a natural state*, all that they require; and as in such situations one generation of plants after another mature and decay, the inorganic matters in the soil are continually upon the increase—while upon our cultivated land, we are annually removing them from the soil in our crops. The interest, then, of the farmer, requires that he should in some form return them. Prof. Liebig, I believe, has advanced the doctrine, that the fertility of the soil can be kept up, by returning to it the mineral, or inorganic matters carried off in the crops. Whether that is true, or not, time and experiments may determine. L. B.

When we consider that Agriculture is the great business of the nation; that its successful prosecution depends upon a knowledge, in its followers, of the principles of natural science—and that *our* agriculture stands in special need of this auxiliary aid—we cannot withhold our surprise and regret, that we have not long since established professional schools, in which our youth might be taught, simultaneously, the principles and practice of their future business of life—on which, more than on any other branch of industry, the fortunes of our country, moral, political and national, essentially depend—and by which, under the blessing of Providence, we virtually "live, move, and have our being."—*Buel.*

ASHES.

As a manure, ashes, on certain soils, are invaluable. We have frequently experienced the beneficial effects resulting from their application, but never more convincingly than during the present year. On a piece of corn, containing about two statute acres, we applied about twenty bushels of ashes and a like quantity of gypsum, or plaster of Paris—the ashes being applied on every other row in order that the comparative value of the two articles might be accurately ascertained.

The result of this experiment was perfectly in accordance with our previous observations. Through the entire season, the rows on which the ashes were applied, took the lead, and at harvest produced one-third more corn than those which had the gypsum.

We would recommend to every one to save all the house-ashes he possibly can. Even leached ashes are too valuable to be thrown away. Applied as top-dressing to grass lands, they produce important effects.

One of the most substantial farmers in Massachusetts, writing us on the subject, says: "I am now more fully than ever persuaded of the value of ashes as a manure. Nothing, in the whole catalogue of manures, compares with them on my land. At the distance of nearly two miles from the seashore, I sowed, in 1835, twentyfive and a half bushels to the acre. The soil was a thin, clayey loam, and the result of the application was a crop of excellent clover, where, for years, nothing had grown but mullen and wild rye. The land has not yet forgot the application; the grass on the soil with ashes being greener and far more luxuriant than on that where no such application has been made. On corn, beans and wheat, ashes, leached or unleached, operate with the best effects. Formerly we were in the practice of disposing of our ashes at from a shilling to twenty cents per bushel; but experience has now opened our eyes, and we are purchasing all we can get, at double the former price."—*Maine Cult.*

Definitions of Terms used in Agriculture.—Aeriform—having the form and nature of an elastic, invisible fluid, like air.

Aliment—that which nourishes animals or vegetables; the nutritive quality of food, dissolved and blended with the juices of the stomach, or the moisture of the soil, and converted into chyle or sap, by the digestive process, and taken up by the chyle or sap-carrying vessels.

Alluvial soils—formed by the action of water, as river flats; composed of various and heterogeneous materials.

Antiseptic—applied to those substances which check or resist putrefaction, as salt, charcoal, &c.

Culmiferous crops—the grains and the grasses which have smooth, jointed stalks, (culms,) and seed contained in chaffy husks, as wheat, timothy, &c. These have generally fibrous roots.

Strata—the plural of stratum; beds or layers of earth, or other substances.

Humus, or *Geine*—the product of organic matter, and the food of plants.—*Far. Comp.*

Clover meliorates and supplies the soil with a large amount of vegetable matter, hence it is a cheap and an efficient fertilizer, when there is a good inorganic basis; but when there is a deficiency of potash, lime, sulphuric and phosphoric acid, it must, in the long run, if removed from the soil, have an impoverishing tendency.—*J. Dungan's Address, before the Bucks Co. (Pa.) Ag. Soc.*

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

Edited by Joseph Breck.

Boston, Wednesday, Dec. 31, 1845.

CLOSE OF THE YEAR.

This day, 1845 ends its existence, and, in accordance with the irrevocable decree of the stern monarch, Time, it bids us a final adieu:

"Like the dew on the mountain,
Like the mist o'er the river,
Like the spray of the fountain,
'T is gone—and forever."

However much it may have blessed them, men will tomorrow forget all regard due it, and irreverently call it the "*old* year." *We*, however, will not join in this disrespect—for, although the year past has brought us, individually, no great increase of this world's goods, we have enjoyed during its reign, much more of good fortune than ill—and for this we feel disposed to bid it a respectful adieu, with our best wishes for its future welfare.

But as a nation, also, we have reason to speak well of 1845. With but few and slight exceptions, it has been with us a year of peace, plenty, and prosperity. Industry has been well rewarded in the various branches of business, and the doleful cry of "dull times" has scarcely been heard from any class within our borders—not even from the profession of rogues! If it has been a year of sorrow to some, it has been a year of joy to more.

But, for better or worse, it is gone, and beyond recall; and in the occasion of its exit, we may find

"Much to give us pause, if pondered fittingly."

It brings us to another milestone in the journey of our life, and admonishes us that we are fast approaching its end; and that if there is aught in our habits that we would amend—aught in our life past that we would avoid in the life that remain for us—we should commence the reform *today*,—that time is fast hurrying us on to eternity—and that "'t is madness to defer." Let us heed and profit by these solemn admonitions.

And now, having duly paid our respects to the fast expiring year, and enforced its moral, we will "take time by the forelock," and improve the occasion to wish our friends, patrons, and readers, A Happy New Year.

☞SPECIAL NOTICE.

We urgently request all who are indebted to us for one or more years' subscription to the Farmer, to make payment forthwith. We can assure them that we *want* our dues, and hope this call will be sufficient to secure them to us.

Those who may choose to forward money to us through Postmasters, must follow the following forms, to enable us to draw the money:

In the first place, an order on the Postmaster here, must be sent to *us* by the Postmaster with whom the money is deposited. Form of the order:

—— P. O. (Date.)

Sir—Please pay the publishers of the N. E. Farmer —— dollars, it being the amount this day deposited by A. B. as subscription money for said paper

(Signed) C. D., Postmaster.

To the Postmaster }
at Boston, Mass. }

Next, a notice to the Postmaster on whom the order is drawn, thus:

P. O. —— (Date.)

Sir—Mr A. B., has this day deposited in this office —— dollars, which you will please pay to the publishers of the N. E. Farmer, on presentation of my order on you for the amount.

Respectfully, yours, C. D., Postmaster.

To the Postmaster }
at Boston, Mass. }

This should be sent under frank to the Postmaster here, to enable us to draw the money from him.

A LAMENTABLE FACT.

An intelligent farmer of New Hampshire, in a private letter to us, observes—

"I hope the Agricultural Academy will go into operation. Nothing short of the diffusion of correct, scientific agricultural knowledge, will ever save large portions of New England from sterility. I have watched for years the downward course of many farms, and of the hard-working, temperate, prudent owners of them, who are toiling and struggling to bring the year about, but from their want of knowledge of correct principles in farming, they and their farms are annually growing poorer."

Alas for ignorance!—what an obstacle is it to thrift! "Husbandry is profitable to *proficients*, but exceedingly unprofitable to the *ignorant*." So said Socrates, more than two thousand years ago, and the truth of his aphorism is not less apparent now than then.

Had improvement in our farming kept pace with the improvement in our *implements* of farming, we might now boast of the former as we justly can of the latter. And what is the great improvement in farming implements *the result of?* Why, simply the application of MIND, an skill directed by intelligence. And it is this above all things, that the farmer needs to bring to bear upon *his* pursuit, in order to reap that profit which the skillful mechanic does from his.

It is indeed a reproach to us, that in all this vast country, whose main interest is agriculture, there is not (to our knowledge) a single institution, embracing a school and experimental farm, where the vast utility of science to agriculture can be learned and illustrated.

We hope to see the day, however, when this shall not be the case;—when the sad picture of farming drawn by our correspondent, will have no parallel in all our country;—when farmers shall so well understand and appreciate the aid which science is capable of giving them, as not to need its being explained to them; when declaimers against "book farming" shall be reckoned among things that were, but are not; when MIND, enlightened MIND, shall be deemed more essential than *muscle* in the operations of farming; and when it shall be a universally admitted axiom, that *agriculture, to be profitably pursued must be intelligently conducted.*

BUCKWHEAT CAKES.

Mr Editor—In the article on "Buckwheat," copied into your last week's paper, I noticed the remark, that the cakes made from this grain, in some sections of the country, were often objectionable, on account of their "leaden, heavy" quality; and the opinion was expressed that in the manufacture of these articles, "*city* cooks" might learn something from our *country* housewives.

In this opinion, I think the writer was correct. "Buckwheat cakes," so called, in the city, are often a downright libel on the country article under the same name. I send you the following recipe, (the author of which is unknown to me,) in the hope that it may furnish a useful hint to "city cooks"—and with the further hope that if the wives or daughters of any of your farmer subscribers can *improve* it, they will do so through your columns. Of the value of the recipe, I cannot speak from experience:—of its *poetry*, it is not necessary to say anything: it was evidently inspired in the *kitchen*, and *done* by a *cook*. I will only add all that I can say *authoritatively* touching the subject, and that is, that "Buckwheat cakes," *made* as they ought to be, *cooked* as they ought to be, and served *hot*—(the *deil* take the *cold* ones)—are, to use a cant superlative, "first rate, and no mistake." At least, such is the decision of the palate of Your ob't serv t, Buck.

Recipe for Making Buckwheat Cakes.

Do, dear Jane, mix up the cakes:
Just one quart of meal it takes.
Pour the water in the pot,
Be careful that 't is not too hot;
Sift the meal well through your hand;
Thicken well—don't let it stand;
Stir it quick—clash—clatter—
Oh! what light, delicious batter!
Now listen to the next command:
On the dresser let it stand
Just three-quarters of an hour,
To feel the gently rising power
Of powders melted into yeast,
To lighten well this precious feast.
See! now it rises to the brim—
Quick, take the ladle, dip it in.
So let it rest, until the fire
The griddle heats, as you desire.
Be careful that the coals are glowing,
No smoke around its white curls throwing.
Apply the suet softly, lightly—
The griddle's black face shines more brightly.
Now pour the batter on—delicious!
(Do n't, dear Jane, think me officious,)
But lift the tender edges slightly—
Now turn it over, quickly, sprightly.
'T is done—now on the white plate lay it,
And to the breakfast room convey it.
Smoking hot, with butter spread,
'T is quite enough to turn our head.
Now I have eaten—thank the farmer
That grows this luscious, mealy charmer;
Yes, thanks to all—the cook that makes
These light, delicious buckwheat cakes.

☞We are indebted to Luther Tucker, Esq., Secretary of the N. Y. State Agricultural Society, for a copy of the address of Hon. Josiah Quincy, jr., delivered before the Society at its last annual exhibition. It is an able and elegant production, *of course*. We shall publish it entire.

☞We acknowledge the receipt of one hundred and fifty dollars from the Rhode Island Society for the Encouragement of Domestic Industry, for the N. E. Farmer, to be distributed in premiums.

Sheep.—A thing not commonly considered in the selection of sheep, (says a writer,) but which is not unimportant, is to get those that are without horns. Any one who has had the management of sheep in winter, can testify to the injury which large-horned sheep do in crowding after fodder and running through gates, &c. Pregnant ewes are often injured when kept with horned rams. Cline says that those who breed horned sheep, sustain a loss which they do not conceive of; for it is not the horn alone, but much more bone in the skull is required, and an additional quantity of ligament and bone in the neck, and these parts are of small value. The skull of a horned ram was found to weigh three times more than that of a hornless ram of the same age.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietor of the New England Farmer, Brighton, Mass, in a shaded Northerly exposure, to the week ending Dec. 28.

Dec. 1845.		7 A.M.	12, M.	5, P.M.	Wind.
Monday,	22	11	24	19	N. W.
Tuesday,	23	11	26	17	N. W.
Wednesday,	24	10	27	24	N. E.
Thursday,	25	32	34	26	N. E.
Friday,	26	21	24	22	N.
Saturday,	27	14	23	19	N. W.
Sunday,	28	25	36	31	W.

BRIGHTON MARKET.—Monday, Dec. 29, 1845.

Reported for the N. E. Farmer.

At market 720 Beef Cattle, 2600 Sheep and 50 Swine. 300 Beef Cattle unsold.

Prices.—*Beef Cattle.*—Last week's prices generally were not sustained. A yoke or two Extra, $5,25. First quality $4,50 a $5,00. Second quality $4,00 a 4,25. Third quality $3,25 a $4,00.

Sheep.—Small lots from $1,25 to $2,50.

Swine.—At retail from 4 1-2 to 6.

Statement of Brighton Market for 1845.

48,910 Beef Cattle,	sales estimated at	$1,370,900
13,275 Stores,	" "	212,400
107,960 Sheep,	" "	134,950
56,580 Swine,	" "	175,398
		$1,893,648

1844.

37,310 Beef Cattle, 4,136 Stores, 92,274 Sheep, 52,740 Swine,	Sales estimated at	$1,689,374

1843.

32,915 Beef Cattle, 10,605 Stores, 98,820 Sheep, 43,060 Swine,	Sales estimated at	$1,685,832

WHOLESALE PRICES CURRENT.

Corrected with great care, weekly.

SEEDS. Herds Grass, $0 00 a 2 50 per bushel. Red Top 00 to 60 cents. Clover—Northern, 11 to 11½c.—Southern, 10 a 11c. Flax Seed. $1 50 per bushel. Lucerne, 33 c. per lb. Canary Seed, $2 25 a 2 50 per bushel. Millet, 1 75 to 2 00.

GRAIN The Grain market has been rather inactive through the week past. The improvement noticed after the Acadia's arrival, soon disappeared, and prices fell back to quoted rates.

Corn—Northern, new, bushel 00 a 00—Southern, round yellow, 00 a 00—Southern flat yellow, 00 a 80—do. do. white 75 a 77—do New Orleans, 00 a 00—Barley 00 a 00—Rye, Northern, 90 a 91—do. Southern, 00 a 00—Oats Southern, 46 a 48—Northern do. 50 to 51—Beans, per bushel 1 50 a 1 75.—Shorts, per double bush. 50 a 55—Bran, 00 a 40.

FLOUR. It has been an unusually dark week for Flour dealers, nothing of consequence has been done, and the market has been almost daily declining.

Baltimore, Howard Street, 4 mos. cr. new, $0 00 a 6 00—do. wharf, $0 00 a 5 75—do. free of garlic, $0 00 a 0 00—Philadelphia do. 4 mos. $0 00 a 0 00—Fredericksburg, low f'd new $0 00 a 5 75—Alexandria, wharf, 0 00 a 5 75—Georgetown, $0 00 a 6 00—Extra do. 6 25 a 6 50—Richmond Canal, $0 00 a 0 00—do. City, $6 75 a 0 00—Petersburgh, City, $0 00 a 0 00—do. Country $0 00 a 0 00—Genesee, common, cash, $5 75 a 6 00—do fancy brands, $6 25 a 6 50—Ohio via Canal, $5 62 a 5 75—do do New Orleans, cash $0 00 a 0 00. Rye, $0 00 a 5 00—Indian Meal in bbls. $4 12 a 4 25.

PROVISIONS. The transactions have been very limited in old Pork, at about former rates. Several parcels Western new have arrived, but we learn of no sales.

Beef—Mess 4 mo. new bbl. $8 75 a 9 25—Navy—$7 75 a 8 25.—No. 1, $0 00 a 0 00—do Prime $5 75 a 6 00—Pork—Extra clear 4 mo. bbl. $15 00 a 00 00—do Clear $14 00 a 15 00 do. Mess, $13 50 a 13 75—do Prime $10 50 a 11 00—do Mess from other States,— a — —do Prime do do $0 00 a 0 00 do. Cargo do. 0 00 a 0 00—Clear do do $00 00 a 00 00—Butter, ship'ng, 12½ a 14—do store, uninspected, 13 a 15—do dairy, 15 cts. a 18—Lard, No. 1, Boston ins. 8¼ a 8¾—do South and Western, 8 a 8½—Hams, Boston, 8 a 8½—Southern and Western, 0 a 0—Cheese, Ship'g and 4 meal 6 a 8—do new milk, 7½ a 0.

WOOL. Duty. The value whereof at the place of exportation shall not exceed 7 cts. per pound, 5 per cent. ad. val. All whereof the value exceeds 7 cts. per pound, 40 per ct. ad. val. and 3 cts. per pound.

Moderate sales, without any change in prices. The demand will be limited until after the new year comes in.

Prime or Saxony Fleeces, washed, lb. 40 a 45 c.—American full blood, do 37 a 40—Do. 3-4 do 34 a 35—Do. 1-2 do 32 a 33 -1-4 and common do 29 a 31 — Smyrna Sheep, washed, 20 a 22—Do. unwashed, 10 a 15—Bengasi do 6 a 12—Saxony, clean, 00—Buenos Ayres unpicked, 7 a 10—do. do. picked, 10 a 14—Superfine Northern pulled lamb 33 a 38—No. 1 do. do. do. 30 a 32—No. 2 do do do 23 a 25—No. 3 do do do 14 a 17.

HOPS. Duty 20 per cent.

1st sort Mass. 1844, lb. 23 a 25 ; 2d do 21 a 22.

HAY, 20 to 21 per ton—Eastern Screwed $17 to 18.

EGGS. 15 to 18.

WILLIS'S
Latest Improved Vegetable Cutter.

For sale at the New England Agricultural Warehouse, No. 51 and 52 North Market Street, Boston, Willis's Latest Improved Vegetable Cutter. This machine surpasses all others for the purpose of Cutting Ruta Baga, Mangel Wurtzel, and other roots. The great objection to other machines, is their cutting the roots into slices, which makes it almost impossible for the cattle to get hold of them: this machine with a little alteration, cuts them into large or small pieces, of such shape as is most convenient for the cattle to eat. It will cut with ease from one to two bushels of roots per minute. JOSEPH BRECK & CO.

Nov. 1.

Guano! Guano!

Just received and for sale in lots to suit purchasers, 20 tons African and South American Guano, of superior quality, the best ever brought into this market. The African, which is part of the cargo of the brig Samos was analyzed by one of the first chemists of this country, and pronounced to be of the first quality; it has been fairly tested by many of the farmers and gardeners in the vicinity of Boston, and has fully equalled their highest expectations. We can fully recommend the South American, which has also been carefully analyzed, and found to be a splendid article, and very superior, being free from stones and hard substances. For sale by the ton, bbl. or bag. Orders addressed to JOSEPH BRECK & CO., 51 and 52 North Market street, will be promptly attended to.

Boston, March 25, 1845.

SEEDS AND TOOLS.

JOSEPH BRECK & CO. having received a full and general assortment of FIELD, GRASS, GARDEN and FLOWER SEEDS, worthy of cultivation, confidently recommend them as being pure and of the first qualities, unmixed with other varieties; they have no hesitation in saying that their collection of Seeds is the best, and of the greatest variety ever offered for sale at any establishment in the U. States.

AGRICULTURAL BOOKS of all kinds, constantly on hand.

AGRICULTURAL AND GARDEN IMPLEMENTS of all kinds, among which are the following, viz:—1000 Howard's Patent Cast Iron Ploughs, 200 Common do. do, 200 Cultivators, 100 Greene's Straw Cutters, 50 Willis' do. do. 100 Common do. do, 100 Willis' Patent Corn Shellers, 50 Common do. do, 200 Wilfis' Seed Sowers, 50 do. Vegetable Cutters, 50 Common do. do., 200 Hand Corn Mills, 200 Grain Cradles, 100 Ox Yokes, 1500 Doz. Scythe Stones, 3000 do. Austin's Rifles, 100 doz. Cast Steel Shovels, 150 do. Common do. 100 do. Spades, 500 do. Grass Scythes, 300 do. Patent Snaiths, 200 do. Common do., 500 do. Hay Rakes, 200 do. Garden do., 200 do. Manure Forks, 300 do. Hay do. 500 Pair Trace Chains, 100 do, Truck do. 100 do. Draft do, 500 do. Tie up do, 50 doz. Halter do, 1000 yards Fence do, 25 Grind Stones on Rollers.

JOSEPH BRECK & CO.,
N. E. Agricultural Warehouse and Seed Store, 51 and 52 North Market Street. Boston.

ESSAY ON GUANO.

For sale at Nos. 51 and 52 North Market Street, Teschemacher's Essay on Guano,—describing its properties and the best methods of its application in Agriculture and Horticulture, with the value of importations from different localities; founded on actual analyses, and on personal experiments upon numerous kinds of trees, vegetables, flowers, &c. Price 25 cents. JOSEPH BRECK & CO.

Boston, Nov. 4.

BOUSSINGAULT'S RURAL ECONOMY.

Boussingault's Rural Economy; Price $1,75. Downing's Book of Fruits; price $1,75. Stable Keeper's Companion; price $1,00. Also, a general assortment of *AGRICULTURAL WORKS.*

Boston, Sept, 10, 1845 JOS. BRECK & CO.

HERDS GRASS OF EXTRA QUALITY.

The subscribers have received a few tierces of extra fine *HERDS GRASS SEED*, perfectly free from all foul seed, which they can confidently recommend to farmers for August sowing. Also, their usual supply of good *GRASS SEED*, of all kinds. JOSEPH BRECK & CO.

Nos. 51 & 52, North Market street, up stair

MARTIN'S MASSACHUSETTS PREMIUM EAGLE PLOWS.

The subscribers have for sale at their extensive Agricultural Warehouse, No. 51 & 52 N. Market street, *MARTIN'S MASSACHUSETTS PREMIUM IMPROVED EAGLE PLOWS.*

Mr. Martin's Plows combine new and important improvements adapting them to the different qualities of soil and the various modes and systems of culture His Eagle Plows, as improved, are much longer, the mouldboard, landside and point, or share, all extended without any addition to the width or heel in its work; thus adapting this Plow to the more perfect turning under of the greensward, and inverting of the furrow-slice, so desirable in greensward plowing. The principle of these Plows is such, from where the furrow-slice is received upon the mouldboard to where it leaves it, that it enables the Plow to take up the furrow-slice with the greatest possible ease, bearing equally and lightly over the whole surface of the mouldboard, turning it over with the least possible bending or twisting, and preserving it flat, smooth and unbroken, laying the furrow-slices closely and compactly side by side, and creating but slight friction upon the face of the mouldboard in passing through the soil. Thus the Plow requires but very little power of draft beyond what is necessary to cut out the furrow-slice.

In testing the quality of Plows, the power by which it is moved, the ease with which it is handled, and the manner in which it completes the work, are three important points, all of which are wisely, accurately and judiciously preserved in these improved Plows.

The character of these Plows for ease of draft and management, and the excellence of their work, though well established in the minds of the farming community, were most fully and satisfactorily exhibited to the public at the grand trial of Plows by the Massachusetts Agricultural Society, at Worcester, October 9th, 1844, whose able and impartial committee awarded the highest premium of $50 to B. Martin, for the best Plow, for doing the best work with the least draft, in a trial open to the whole Union—this Plow running in its natural course, and keeping its true position, without any effort of the plowman, and turning a furrow 12 inches wide and 6 inches deep, with a much less draft than any other Plow on the ground.

These Plows, as improved, are considered to be nearest to perfection of any implements of the kind in this country, as well in respect to material and workmanship, as in form of construction.

At the late Cattle-Show and Plowing-Match of the Worcester County Agricultural Society, in the heart of that most valuable agricultural county, B. Martin's Plow received the highest and most enthusiastic commendation from intelligent and experienced practical farmers, who know and are the most competent judges.

His castings are of a superior kind, the workmanship not inferior to any other Plows in this country, and his timber being the very best of white oak; and every farmer knows that good timber in his Plows is of the utmost importance—all of which in fact renders B. Martin's Plow the very article every farmer wants. The high character of these Plows is abundantly sustained by a continued and extended patronage, which the manufacturer hopes by his efforts and exertions to retain Being himself an experienced Plow-Maker, he will not spare any exertions in order to render his Plows a superior article.

Gentlemen are requested to call and examine these Plows before they purchase JOSEPH BRECK & CO.

Boston, March 24.

CORN SHELLER.

A Corn sheller is one of the most convenient and labor saving implements that the practical farmer has in use. Various machines for this purpose have been invented. It can be used in all cases for large or small sized ears. It is very simple in its construction, and durable in its operation, and no way liable to get out of order; one man can work it togood advantage, though a man to turn, and a boy to feed it, works it much better than one alone. They are so light and portable, as to be easily removed from place to place, and one machine will serve for several families or even the inhabitants of a small town.

For sale at the Agricultural Warehouse and Seed Store Nos. 51 and 52, North Market Street.

JOS. BRECK & CO.

FARMERS' ALMANACK FOR 1846.

For sale at the N. E. Farmer Office, Thomas's Almanac for 1846, by the hundred or dozen.

Boston, Nov. 4.

MISCELLANEOUS.

Moral Courage in Everyday Life.—Have the courage to discharge a debt while you have the money in your pocket.

Have the courage to do without that which you do not need, however much your eyes may covet it.

Have the courage to speak your mind, when it is necessary that you should do so, and to hold your tongue when it is prudent you should do so.

Have the courage to speak to a friend in a 'seedy' coat, even though you are in company with a rich one, and richly attired.

Have the courage to own you are poor, and thus disarm poverty of its sharpest sting.

Have the courage to make a will, and a just one.

Have the courage to tell a man why you will not lend him your money.

Have the courage to "cut" the most agreeable acquaintance you have, when you are convinced that he lacks principle. "A friend should bear with a friend's infirmities"—but not with his *vices.*

Have the courage to show your respect for honesty, in whatever guise it appears; and your contempt for dishonesty and duplicity, by whomsoever exhibited.

Have the courage to wear your old clothes until you can pay for new ones.

Have the courage to obey your Maker, at the risk of being ridiculed by man.

Have the courage to wear thick boots in winter, and insist upon your wife and daughters doing the same.

Have the courage to prefer comfort and propriety to fashion, in all things.

Have the courage to acknowledge your ignorance, rather than to seek credit for knowledge under false pretences.

Have the courage to provide an entertainment for your friends, within your means—not beyond.

Have the courage to take a good paper, and to pay for it annually in advance.

A Strict Constructionist.—Mr C. F. Noland, of Arkansas, is said to have made the following speech at the late Memphis Convention:

Mr President,—Before the vote is taken, I wish to make a speech which shall not be five minutes long. (Cheers, and cries of "go on.") When Gen. Geo. Rogers Clarke was taken prisoner by the Indians, they made him pack the skillets and things of the whole party, and keep up with 'em too. After three or four days, he was so worn out with fatigue that he could with difficulty drag one foot after the other. So he thought he'd make 'em a speech—(cheers.) Throwing down the skillets, and mounting a log, he stretched out his hands and said:—"*Gentlemen Ingins!*—(peals of laughter)—I propose that every man carry his own skillet!"

And so, Mr President, I propose that every State carry *her own* skillet! (Loud applause.)

The Eyes of Insects.—How wonderfully constructed are the beautiful organs of insect vision! How admirably adapted to the necessities of insects! The gaudy dragon-fly, presenting, as he does, such a conspicuous tempting show of colors to the active swallow, eludes his feathered enemy by superior agility of flight. Mere agility, however, would avail nothing without the aid of powerful eyes. Accordingly, nature has given him somewhat more than *twelve thousand*, bright and piercing ones, some looking upwards, some downwards, some backwards, and some on either side. In the ants, there are fifty of these faces or eyes; in the horse-fly, four thousand; in butterflies, upwards of seventeen thousand three hundred and fiftyfive have been counted; nay, in some coleopterous or scaly winged insects, there have been numbered no less than twentyeight thousand and eightyeight.—*Polytechnic Review.*

The Roman soldiers were accustomed to provide themselves with vinegar in their marches to be used as a drink. It is conjectured that the vinegar which was offered to our Saviour at his crucifixion, was that which the soldiers used for their own drinking. If so, it would seem to have been presented with kind intentions. The Bible represents Boaz as providing vinegar for his reapers, into which they might dip their bread. Before hops were known, wormwood and other bitter herbs were used in drink for the same purposes. They were employed so late as 1492.—*Selected.*

A Lake of Blood.—Dr. Dick estimates the number of those who have perished directly or indirectly by war, at fourteen thousand millions. Elihu Burritt, "the learned blacksmith," has taken the estimates of Dr. Dick, and assuming the average quantity of blood in a common sized person, stat e that the veins of these fourteen thousand millions would fill a circular lake of more than seventeen miles in circumference, and ten feet deep, in which the navies of the world might float.

Curious Thought.—A little boy looked up in his mother's face with an air of deep reflection, and asked her why, instead of marrying his father, she had not waited till *he* grew up, and then married him.

HOWARD'S PREMIUM SUBSOIL PLOWS.

The sub oil Plow is unquestionably the most importan agricultural implement of modern invention. It is considered by the best informed practical farmers of Great Britain and our own country, as an indispensable article in the most profitable husbandry. Says that eminently skilful and intelligent agriculturist, Mr. Phinney, of Lexington: "such is the estimate in which I hold this important implement, that I should consider it a great piece of improvidence to put in a crop without first subsoiling the ground." The subsoil Plows manufactured by Mr. Howard, are of two sizes—the smaller obtained the highest premium offered by the State Agricultural Society at its late exhibition at Worcester. The committee to award the premium on Subsoil Plows, in their report say:—"The committee were pleased with the neatness and firmness of structure of these Plows—characteristics which have distinguished all the Plows of Mr. Howard that have come within their observation. *Utility* and not *show*, are their peculiar features. * * They were astonished to find with what ease and perfection the hard pan could be stirred, and broken to the depth and width of 8 or 9 inches, for such was the operation of the medium size Plows, with a power not exceeding that ordinarily required for moving a surface Plow at the same depth—and they found the Plow might be guided with less labor and fatigue than the surface Plow. * * They confidently recommend the subsoil Plow to the attention of the farmers of the Commonwealth."

The improvement in the length of the handles of Mr. Howard's Plows, suggested by the committee, has been made—and the undersigned are now prepared to furnish these invaluable implements wholesale and retail.

JOSEPH BRECK & CO.

N. E. Agricultural Warehouse and Seed Store, 51 & 52, North Market Street, Boston.

GRINDSTONES ON FRICTION ROLLERS.

Grindstones of different sizes hung on friction rollers and moved with a foot treader, are found to be a great improvement on the old mode of hanging grindstones. Stones hung in this manner are becoming daily more in use and wherever used, give universal satisfaction. The rollers can be attached to stones hung in the common way. For sale by J. BRECK & Co. No. 51 North Market street.

GREEN'S PATENT STRAW CUTTER.

JOSEPH BRECK & CO. at the New England Agricultural Warehouse and Seed Store Nos. 51 and 52 North Market Street, have for sale, Green's Patent Straw, Hay and Stalk Cutter, operating on a mechanical principle not before applied to any implement for this purpose. The most prominent effects of this application, and some of the consequent peculiarities of the machine are:

1. So great a reduction of the quantum of power requisite to use it, that the strength of a half grown boy is sufficient to work it efficiently.

2. With even this moderate power, it easily cuts two bushels a minute, which is full twice as fast as has been claimed by any other machine even when worked by horse or steam power.

3. The knives, owing to the peculiar manner in which they cut, require sharpening less often than those of any other straw cutter.

4. The machine is simple in its construction, made and put together very strongly. It is therefore not so liable as the complicated machines in general use to get out of order.

HOWARD'S IMPROVED EASY DRAUGHT PLOUGH.

Great improvements have been made the past year in the form and workmanship of these Ploughs; the mould board has been so formed as to *lay the furrow completely over, turning in every particle of grass or stubble, and leaving the ground in the best possible manner.* The length of the mould board has been very much increased, so that the Plough works with the greatest ease, both with respect to the holding and the team. The Committee at the late trial of Ploughs at Worcester, say,

"Should our opinion be asked as to which of the Ploughs we should prefer for use on a farm, we might perhaps say to the inquirer, if your land is mostly light and easy to work, try Prouty & Mears, but if your *land is heavy, hard orrocky,* BEGIN WITH MR. HOWARD'S."

At the above mentioned trial the Howard Plough *did more work, with the same power of team, than any other plough exhibited.* No other turned more than twentyseven and one half inches, to the 112 lbs. draught, while the *Howard Plough turned twentynine and one half inches, to the same power of team!* All acknowledge that Howard's Ploughs are much the strongest and most substantially made.

There has been quite an improvement made on the shoe, or land side of this Plough, which can be renewed without having to furnish a new landside; this shoe likewise secures the mould board and landside together, and strengthens the Plough very much.

The price of the Ploughs is from $6 to $15. A Plough sufficient for breaking up with four cattle, will cost about $10 50, and with cutter $1, with wheel and cutter. $2 50 extra.

The above Ploughs are for sale, wholesale and retail, a the New England Agricultural Warehouse and Seed Store Nos. 51 & 52 North Market Street, by

JOSEPH BRECK & CO

NEW ENGLAND FARMER,

A WEEKLY PAPER.

Terms, $2 per year *in advance*, or $2 50 if not paid within sixty days.

Remittances, *not exceeding ten dollars*, at any *one time*, may be made as follows:—A subscriber owes us two or eight dollars, which he wishes to remit us. He will pay this amount to the Post Master *in his own town*, and take his *receipt* for it, as money paid him on *our* account. He will then send that *receipt*, enclosed in a letter, *to us*. We pass it to the Post Master in Boston, and get the money for it. This arrangement does away with nearly the whole risk of making remittance, and puts every subscriber in possession of "suitable funds" for that purpose.

TUTTLE AND DENNETT, PRINTERS
21 SCHOOL STREET.